hp traffic director server appliances

getting started guide for the hp e-commerce traffic director server appliances sa8200/sa8220 and the hp traffic director server appliances sa7200/sa7220

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Getting Started

Before You Begin

This document will guide you through the installation and basic configuration of your HP e-Commerce Traffic Director Server Appliance SA8200/SA8220 and HP Traffic Director Server Appliance SA7200/SA7220.

NOTE: *For ease of reading, all models are referred to as the SA8220 throughout this document. Unless noted otherwise, all SA8220 references refer to all models*

This document covers the following topics:

- Physical installation
- Configuration checklists
- Running Setup using the Boot Monitor
- Configuring DNS
- Using the Graphical User Interface (GUI)
- Helpful hints
- Where to go from here
- Support information

Parts Checklist

Ensure that the items listed below are included in the box with your system:

- HP e-Commerce Traffic Director Server Appliance SA8200/ SA8220 or HP Traffic Director Server Appliance SA7200/ SA7220, as appropriate
- *HP Traffic Director Server Appliances User Guide*
- *HP Traffic Director Server Appliances Getting Started Guide* (this document)
- *HP Traffic Director Server Appliances Release Notes*
- AC power cord
- Null-modem cable
- RJ-45 network cable
- Rack and rail mounting brackets with Phillips mounting screws

Contact HP Customer Support if any of the above items are missing from your shipment.

Support Website

Visit `http://www.hp.com/serverappliances/support/` for late breaking information and for details regarding the current software release.

Physical Installation

If you have already mounted your system, or if your system does not require mounting, proceed to “Wiring Connections” later in this document.

You can physically install the SA8220 in either of two ways. Each installation method requires a particular type of mounting brackets, and are included in the SA8220's shipping container.

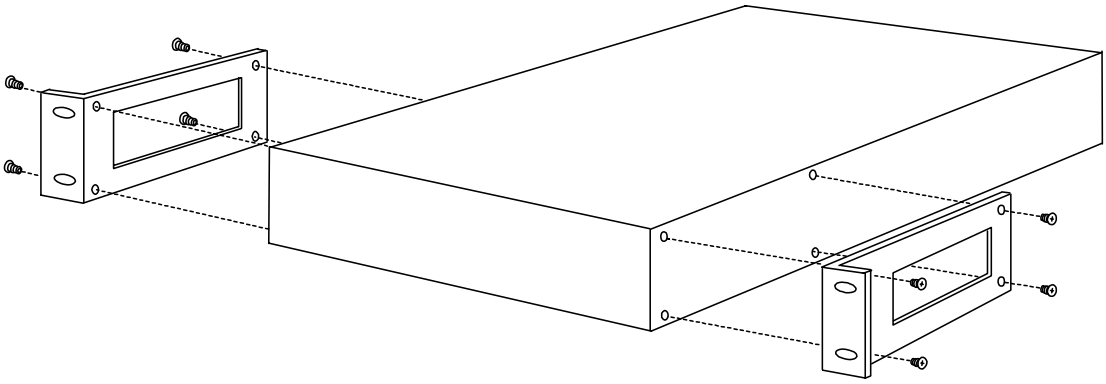
- In a standard 19” rack, cantilevered from the mounting brackets
- In a cabinet with side rail mounts

Rack Installation

***CAUTION: Do not** use the enclosed small mounting brackets for rack installation. These are used for side rail installation.*

Rack mounting requires the use of the large mounting brackets, and all eight of the included Phillips screws.

1. Locate the two large mounting brackets and the provided screws.
2. Attach a large mounting bracket to each side of the SA8220. Use four screws to secure each bracket to the holes near the front of the SA8220, as shown below.



Rack Mounting the SA8220

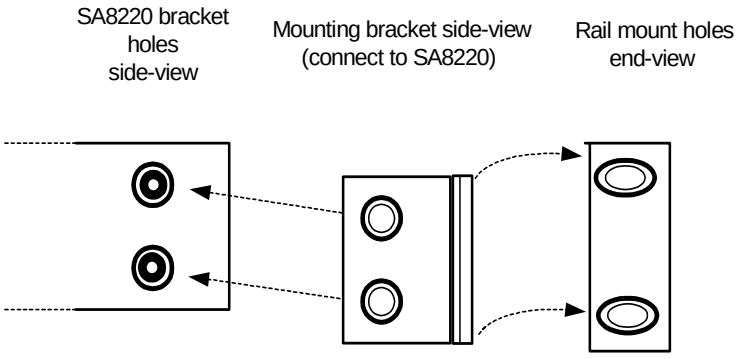
***NOTE:** These screws are provided with your rack hardware, not the SA8220.*

3. Position the SA8220 in the desired space of your 19” rack and attach the front flange of each mounting bracket to the rack with two screws each.

Side Rail Installation

Side rail mounting of the SA8220 requires the use of the enclosed small mounting brackets and four of the Phillips head screws.

1. Locate the two small mounting brackets and the provided screws.
2. Attach a side rail to each SA8220 using the rows of five screw holes on the side of the SA8220, equidistant from the top and bottom, as shown below. The screws for this procedure are not provided with the SA8220; they are supplied with your side rail hardware.



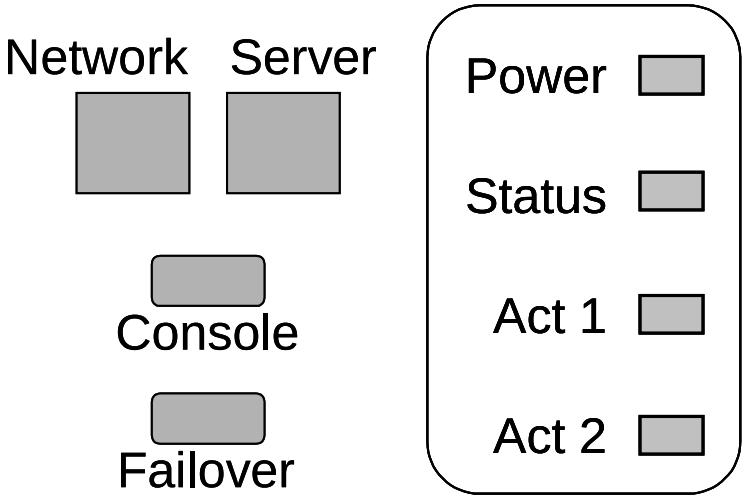
Side Rail Mounting of the SA8220

NOTE: *The small mounting brackets have recesses that allow them to fit over the front end of the side rail.*

3. Attach a small mounting bracket to each side of the SA8220, using two of the provided screws for each bracket. Use the holes nearest to the front of the SA8220.
4. Slide the SA8220 into the cabinet's receiving rails and secure the front flange of each mounting bracket with two screws.

Wiring Connections

1. On the rear of the SA8220, connect the provided AC power cable.
2. Refer to this diagram for all wiring connections on the front panel of the SA8220.



Front Panel Ports and LEDs

3. **For Single NIC (Network Interface Card) configurations**: Connect the *Network* port to your network using the provided RJ-45 network cable.

   For Dual NIC configurations: Connect the *Network* port to your outside network, and the *Server* port to your server side network, using the provided RJ-45 network cable and a network cable you provide, respectively.

4. Use the provided serial cable to connect the *Console* serial port to the serial port of any terminal or workstation capable of running a terminal emulator program.

NOTE: *For more information about serial cable failover, see Chapter 2 in the* User Guide.

5. If you use cable-based failover to manage a backup SA8220, connect the second SA8220 in the manner described above and connect the *Failover* ports of the two units using the serial cable provided with the backup SA8220.
6. If the power is not already on, turn on the SA8220 using the *Reset* switch on the rear panel.

Configuring Your Terminal

This procedure assumes that you are running HyperTerminal* on your workstation, and that your workstation is already connected to the SA8220. If using another terminal emulator, you must adapt these instructions as appropriate.

1. Note the serial port of your workstation (COM1, COM2, etc.)
2. Run HyperTerminal on your workstation.
3. In the *Name* field of the Connection Description window, type a descriptive name, then click *OK*.

   The Connect To panel displays.
4. In the *Connect Using…*list box, click “Direct to COM1” (or the serial port you noted in step 1).
5. Click *OK*.

   The COMn Properties panel displays, where *n* is your comm port number.
6. Configure the port settings for 9600 baud, 8 data bits, no parity, 1 stop bit (**9600-8-N-1**), with flow control set to “None.”
7. Click *OK*.
8. From the File menu, click *Properties*.
9. Click the *Settings* tab.
10. Click the *ASCII Setup* button.
11. Change the values for Line and Character delay from 0 to at least 1 millisecond.
12. Click *OK* twice to exit.
13. Press Enter.

Configuration Checklists

This section contains two configuration tables, the Quick Site Configuration and the Detailed Site Configuration. One of these must be filled out before continuing. We recommend using the Detailed Site Configuration table on the next page. Its use is mandatory when installing more than one SA8220. However, if you are in a hurry and need to get a single SA8220 up and running quickly, use the Quick Site Configuration below.

We recommend that you photocopy the Quick or Detailed Site Configuration table, as appropriate. Fill out the copy before proceeding, and keep it handy while you perform the installation procedures.

Setting	Choice
Hostname assigned to the SA8220's network side interface	
IP address(es) assigned to the SA8220's NIC card(s), and associated subnet mask(s)	
Default gateway for traffic from the SA8220 to the network	
The intended failover method	☐ NONE ☐ ROUTE ☐ SERIAL
Network side online IP address to be shared by the two SA8220s, if you use serial cable failover	

Quick Site Configuration

For further information regarding the choices in these configuration tables, see Chapter 2 in the *User Guide*.

Setting	Parameter	Choice
Hostname assigned to the SA8220's network side interface		
Media Type		☐ 100BASE ☐ AUTO ☐ 10BASE
Duplex Type		☐ FULL ☐ AUTO ☐ HALF
Will the SA8220 use Dynamic Host Configuration Protocol (DHCP)?		☐ YES ☐ NO
If not using DHCP, continue below:		
Network port	IP address IP netmask	
Server port	IP address IP netmask	
Default gateway for traffic from the SA8220 to the network		
The intended failover method		☐ NONE/DISABLED ☐ SERIAL ☐ ROUTE
For Serial Failover mode only: Is the device primary or backup?	Online IP Online hostname	☐ PRIMARY ☐ BACKUP
Will Autoboot be enabled?	Disabled by default	☐ YES ☐ NO
Will the SA8220 use Domain Naming System (DNS)?		☐ YES ☐ NO
If using DNS, complete the following:		
Domain Name		
Primary DNS Server IP		
Additional DNS Server IP		

Detailed Site Configuration

Running Setup Using the Boot Monitor

NOTE: *The SA8220 is not directing traffic when the Boot Monitor is in operation.*

At the first use of the SA8220, you **must** use the Boot Monitor to perform the initial configuration.

After entering the initial configuration parameters with the `setup` command and booting, the SA8220 is ready for routine operations using either the Graphical User Interface (see Chapter 4 in the *User Guide*) or the Command Line Interface (see Chapter 5 in the *User Guide*).

NOTE: *If Autoboot is enabled, you must first interrupt the bootup sequence by pressing a key at the* `Press any key to stop autoboot` *prompt. In a few seconds, the* `monitor>` *prompt displays. This confirms that Boot Monitor is running. Also, this document assumes that the SA8220's serial port is in a secure environment and no password is required to access the Boot Monitor for initial setup and configuration. However, after the device is booted using either the* `boot` *command in the Boot Monitor, or the autoboot function, a password is required to log on to the Command Line Interface.*

1. Type your information as indicated at the prompts. For example:

```
monitor>setup
Enable dual NIC operation (yes, no) [no]
  --->yes
Auto configure the Network side NIC speed and
  duplex? (yes, no) [yes] --->
Auto configure the Server side NIC speed and
  duplex? (yes, no) [yes] --->
  DHCP is disabled for dual NIC operation.
Enter the hostname you would like to assign to
  the Network NIC --->CSLab7k
Enter the IP Address for the Network side NIC
  --->10.6.3.21
Enter the IP Address for the Server side NIC
  --->10.6.5.21
Enter the Netmask for the Network side NIC
  --->255.255.255.0
Enter the Netmask for the Server side NIC
  --->255.255.255.0
Enter default gateway --->10.6.3.1
Would you like to configure DNS (yes,no)?
  [no] --->
  DNS not configured.
Specify failover method (disabled, serial,
  route) [disabled] --->
Enable Autoboot? (yes, no) [no] --->yes
```

2. If using DNS, type your information as indicated at the prompts. For example:

NOTE: For more information on DNS, see "Configuring DNS" later in this chapter.

```
monitor>dns
Would you like to configure DNS (yes,no)?
  [no] --->yes
Enter Domain name('-' to cancel)
  --->crisc.com
Enter the IP Address of the Primary name
  server ('-' to cancel) -->10.6.3.5
Specify additional name server (<return> to
  end) ---> 10.6.3.10
```

3. Save the configuration file by typing your information as indicated at the prompts. For example:

```
monitor>save
List of currently saved configuration file(s).
You may save over an existing configuration
file or enter a new name.
  <configuration files are listed here>
'active.cfg' is the last booted configuration.
Enter configuration file name (- to cancel):
  [active.cfg] --->-
  Configuration save canceled!
```

4. Reboot the system. For example:

```
monitor>boot
  <system information is displayed here>
Select a boot configuration from the following
files
  <configuration files are listed here>
Boot configuration file name? [active.cfg]
  --->
Do you really want to boot 'active.cfg'?
  [y] --->
Please stand by, the system is being booted.
  ..... Done
```

5. Type your new root password at the prompts. For example:

```
New root password (8 to 128 significant
  characters) --->password
Retype new password --->password
```

6. Login to the SA8220, using the factory defaults:

```
login:admin
password:admin
```

NOTE: Access is controlled using Access Control Lists. For more information, see Chapter 5 in the User Guide.

7. To permit all administration tasks to be performed without restriction from all IP addresses and to enable IP forwarding, type the following command:

```
HP SA8220#config sys security mode open
```

After the initial configuration, you do not need to access the Boot Monitor again unless your network configuration changes.

While the SA8220 is booting, the front panel LEDs display a characteristic start pattern. After the boot sequence concludes, the *Power* LED is solid and the *Status* LED blinks. If you observe any deviation from this behavior, see Appendix E in the *User Guide*. The SA8220 normally requires approximately two minutes to boot. When the procedure is complete, the monitor prompt appears (if Autoboot is disabled).

Requirements for DHCP (Optional)

NOTE: DHCP is not available during dual NIC operations, or when Serial Cable Failover is enabled.

DHCP provides a method by which devices using TCP/IP can obtain configuration parameters automatically through the network at restart. If you use DHCP, you must provide the DHCP server with the following parameters for it to pass to the SA8220:

- IP address
- Netmask
- Default gateway
- Host Name (the SA8220's name)
- Domain (optional)
- Domain Name Server (optional)

Configuring DNS

We recommend using IP addresses for the fastest performance. You can also use a host table in the SA8220 when IP addresses are not assigned via DHCP. The host table makes SA8220 restarts faster and eliminates the chance of service failure due to DNS errors and time-outs.

Using a DNS Server

The SA8220 is sometimes required to identify itself and other devices on its network by name and IP address. If your site has a DNS server that contains the names of the SA8220 and servers, the SA8220 can be configured to recognize these by entering the DNS addresses in the SA8220's Boot Monitor.

Host name resolution is always performed in the following order:

1. Local static hosts table
2. Primary DNS server
3. Secondary DNS server

Using the SA8220 without a DNS Server

Another way is to add hosts to the SA8220's host tables, which contain an IP address and hostname for each device.

Host tables are managed using the CLI. This procedure walks you through the naming and addressing setup for the SA8220.

For more information on the CLI, see Chapter 5 in the *User Guide*.

Configure the hosts file to avoid DNS dependency

A static hosts table and DNS servers can be used in concert. When a hostname is not resolved by static hosts table lookup, the SA8220 will use the DNS server.

1. Enter the following into the SA8220's hosts file to avoid the need for DNS:

- The SA8220's own name (automatically entered by the Boot Monitor program, though you can subsequently change it)
- The backup SA8220's name (if using serial cable failover, see Chapter 3 of the *User Guide*)
- The "online" SA8220 name (if using serial cable failover)

- Names of any servers included in the configuration, if entered as names as opposed to addresses
- Names of any clients from which administration via the CLI or the GUI will be performed
- Names of any TFTP servers that will be used to send or retrieve configuration files

Adding and Deleting Host Entries

The CLI command, `config sys hosts info` lists the contents of the hosts file.

1. To add a host, type this command:

   ```
   HP SA8220/config/sys/hosts#add <IP address>
   'alias' <hostname> {'alias1' <hostname>
   {'alias2' <hostname> {'alias3' <hostname>
   {'alias4' <hostname> {'alias5' <hostname>
   {'alias6' <hostname> }}}}}}
   ```

   For example:

   ```
   HP SA8220/config/sys/hosts#add 10.5.5.13
   alias server13 alias2 http-serv13

   Host ip '10.5.5.13' added to host file.
   ```

   The SA8220 is now able to access other devices on the network by name, either through the local static name table or through DNS.

2. To delete a host, type this command:

   ```
   HP SA8220/config/sys/hosts#delete <IP
   address>
   ```

For more information on these commands, see Chapter 5 in the *User Guide*.

Using the Graphical User Interface

Edit the HOSTS file

Before using the Graphical User Interface (GUI), you must first add the IP address and name of your SA8220 to your workstation's HOSTS file:

1. If you already know the location of your workstation's HOSTS file, proceed to step (5).
2. Launch Windows Explorer.
3. From the Tools menu, select *Find* > *Files and Folders...*
4. In the *Named* field, type **`hosts*.*`** and click *Find Now.* One or more filenames matching your search criteria are displayed.
5. Open the HOSTS file (usually all uppercase, with no extension) using Notepad* or another ASCII text editor.
6. Near the bottom of the file, type a line containing the IP address of your SA8220 and its name, separated by a tab or spaces. For example:

   ```
   10.6.3.21    CSLab7k    CSLab7k.crisc.com
   ```

7. Repeat step (6) on a separate line for each additional SA8220, if applicable. The IP address and name for each must be unique.
8. Save the HOSTS file (typically CTRL-S or *File* > *Save*).
9. Close the text editor, the Find window, and Windows Explorer, if necessary.

Java* plug-in

To run the GUI using Windows, you must have Java plug-in version 1.1.1_004 (or earlier) installed on your workstation. If you attempt to launch the GUI without it, you can download the plug-in directly from the SA8220:

To download the plug-in using Communicator*

NOTE: *If you have a Java plug-in version later than 1.1.1_004, you must remove it* ***before*** *installing this version.*

1. Launch the GUI by typing the URL for the SA8220 in the browser's *Location* field, and press Enter. For example:

   `http://CSLab7k:1095/`

2. To begin the download process, click *Click here to get the plug-in*.

   A dialog box displays.

3. Click *Get the Plug-in*.

   A hypertext link displays.

4. Click *Java Plug-in Version 1.1.1-004 for Windows*.

   The Windows "Save As" box displays.

5. To save the file (`plugin1_1_1-004-win.exe`), click *Save*.

6. Close your browser.

7. Use Windows Explorer* to locate the file you saved in step (4).

8. To launch the plug-in installation, double-click the file.

   The installation program displays.

9. Follow the prompts to install the plug-in.

10. When the installation completes, restart your browser.

11. Launch the GUI by typing the URL for the SA8220 in the browser's *Location* field, and press Enter. For example:

    `http://CSLab7k:1095/`

    The GUI displays.

To download the plug-in using Internet Explorer* 5.0

1. Launch the GUI by typing the URL for the SA8220 in the browser's *Address* field, and press Enter. For example:

   `http://CSLab7k:1095/`

2. Click anywhere inside the white frame.

   The "Error Locating Object Handler" window displays.

3. Click *Yes*.

   A hypertext link displays.

4. Click *Java Plug-in Version 1.1.1-004 for Windows*.

   The "File Download" window displays.

5. Click *Run from Current Location* to install the plug-in.

6. When the installation completes, press the browser's "Back" button.

   The GUI displays.

Helpful Hints

This table lists some helpful hints for using the SA8220.

Item	Description
Default login	The default username and password is **`admin`** (all lowercase)
Configuration file	Save your configuration file immediately after every change. You should also export your current configuration file routinely to a safe, secure location.
Username and password	Devise a method to remember your username and password

Helpful Hints

Where to go from here

This table shows you where to find helpful information in the *User Guide*.

Subject or Task	Where to find it in the User Guide
Theory of Operations	Chapter 2
Boot Monitor Commands	Chapter 3
Using the Graphical User Interface (GUI)	Chapter 4 (also in the Online Help)
Configuring Layer 4 and Layer 7 Services	Chapter 4 (also in the Online Help)
Using the Command Line Interface (CLI)	Chapter 5
Applications for the SA8220	Chapter 6
SNMP Information	Chapter 7
Software Updates	Chapter 8
How to Obtain Keys and Certificates	Appendix B
How to Configure Out-of-Path Return (OPR)	Appendix D
Diagnostics and Troubleshooting	Appendix E

User Guide Directory

Support for your SA8220

U.S. and Canada

For hardware service and telephone support, contact:

- An HP-authorized reseller

  or

- HP Customer Support Center at 800-633-3600

Europe

For hardware service and telephone support, contact:

- An HP-authorized reseller

  or

- One of the following HP Customer Support Centers:

  Country and Number
  Austria – 0660 6386
  Belgium (Dutch) – 02 626 8806
  Belgium (French) – 02 626 8807
  Czech Republic – 420 2 613 07 310
  Denmark – 3929 4099
  English (non-UK) – +44 20 7512 5202
  Finland – 02 03 47 288
  France – 01 43 62 3434
  Germany – 0180 525 8143
  Greece – +30 (0) 16196411
  Hungary – 36 1 382 1111
  Ireland – 01 662 5525
  Israel – 972 9 952 4848
  Italy – 02 2 641 0350
  Netherlands – 020 6068751
  Norway – 22 11 6299
  Poland – +48 22 8659800
  Portugal – 21 317 6333
  Russia – 7095 797 3520
  South Africa RSA – 086 000 1030
  Outside RSA – +27 11 258 9301
  Spain – 902 321 123
  Sweden – 08 619 2170
  Switzerland – 084 880 1111
  Turkey – 90 212 221 6969
  United Kingdom – 0870 842 2339

Asia

For hardware service and telephone support, contact an HP-authorized reseller or one of these support centers:

Country and Number
Australia – 03-8877-8000
Hong Kong – 800-96-2598
India – 91-11-6826035
Indonesia – 0800-21511
Japan – 0120-220-119
Korea – +82-2-32700911
Malaysia – 60 3 2931811 or 1-800-881811
New Zealand –
Upper North Island – 09-356-6640
Lower North Island – 04-499-2026
South Island – 03-365-9805
People's Republic of China – 86-8008105959
Philippines – 63 2 811-0643
Singapore – +65-2725300
Taiwan – +866-080-010055 / 886-2-7170055
Thailand – 66 2 6613891
Vietnam –
Hanoi – 84 4 9430101
Ho Chi Minh City – 84 8 8324155

Latin America

For hardware service and telephone support, contact an HP-authorized reseller or one of these support centers:

Country and Number
Argentina – (541) 4778-8380
Brazil –
Sao Paulo – (11) 3747-7799
All Others – 0800-15-77-51
Chile – 800-360-9999
Columbia – 9-800-91-9477
Guatemala – 1-800-999-5305
Mexico –
Ciudad de Mexico – 5258-9922
All Others – 800-472-6684
Peru – 0-800-10111
Puerto Rico – 1-877-232-0589
Venezuela –
Caracas – 207-8488
All Others – 800-47-777

Other Countries

For hardware service, contact your local authorized reseller or HP sales office. For telephone support, contact your authorized reseller.